IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

PALTALK HOLDINGS, INC., **Plaintiff,** **vs.** **CISCO SYSTEMS, INC.,** **Defendant.**	**Case No. 6:21-cv-00757-ADA**

DEFENDANT CISCO SYSTEMS, INC.'S REPLY CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

Paltalk's bifurcated approach to claim construction is somewhat baffling: where there is no actual dispute between the parties ("PC based equipment"), and the term should be clear on its face to both to a person of ordinary skill in the art (POSITA) and to a potential juror, Paltalk nonetheless insists on a construction. Yet, for a term – "multiplexed stream" – that requires explication for a juror and that demonstrates a true disagreement between the parties, Paltalk insists that no construction is necessary, simply to preserve its options to bend the claims to fit anything it may find in discovery.

The underlying problem with Paltalk's non-construction of "multiplexed stream" is that it requires divorcing the claims from the specification and looking at the term in a vacuum. As discussed below, Paltalk's attempt to poke holes in Cisco's construction hinges on a basic conflation of two separate concepts: (1) the output of the multiplexer, and (2) the stream received from the client. These concepts are related, but not co-extensive.

Similarly, Paltalk's attempt to locate structure for the means-plus-function terms suffers two fatal flaws: (1) identifying disclosure that is not clearly linked or associated with the claimed function (removing packets from an existing stream), which instead relates to a different function (not including packets in a stream being created); (2) relying on disclosure that merely hypothesizes what a POSITA would know, but never shows "how" to perform the function. As discussed more fully below, these terms are indefinite and render claims 7 and 8 invalid.

II. DISPUTED TERMS

A. "a multiplexed stream" / "said multiplexed stream" (claims 1, 2, 6, 7)

Paltalk and Cisco both contend that "multiplexed stream" should be ascribed its plain and ordinary meaning, but only Cisco specifies what that meaning is. While certain terms are so clear to even a lay juror that they do not require construction, *see Phillips v. AWH Corp.*, 415 F.3d 1303,

1314 (Fed. Cir. 2005), the technical complexity of "multiplexed stream" requires that the parties identify what that term means to a POSITA, even though the individual concepts of "multiplexing" and "stream" are known and understood. Paltalk seeks to kick the claim construction can down the road to the jury in an effort to preserve (for now) broad infringement allegations that depend on a vague interpretation of "multiplexed stream," but that defeats a fundamental purpose of *Markman*, which is to permit parties to litigate more efficiently by streamlining technical arguments. Paltalk, in turn, asserts that Cisco's construction lacks intrinsic support. *See* Opp'n at 3–4. But in attempting to find support in the specification, Paltalk conflates (1) the data stream received from the client, and (2) the multiplexed stream outputted by the multiplexer. The intrinsic record dictates that "multiplexed stream" is only the latter. And this confusion is precisely why it is necessary to delineate the term's plain and ordinary meaning.

i. "a data structure"

Paltalk asserts that multiplexed streams are not comprised of "data structures" because: (1) there is no intrinsic support for "data structures;" (2) the patent does not require the multiplexer to output a specific data structure; and (3) the multiplexed stream does not refer to a single output. *See* Opp'n at 6–7. But as discussed below, both the claim language and the specification demonstrate that multiplexed streams are comprised of "data structures."

First, Paltalk contends that a multiplexed stream is not necessarily comprised of data structures and that the patent "simply describes data being transmitted." *See* Opp'n at 6. But the intrinsic record clearly and consistently describes data being transmitted as "packets;" and a POSITA would know that transmission through a packetized network requires a data structure. Clients communicate via "packets" received from each of the plurality of clients. '858 Patent at Claim 1. Step 5 and 6 of claim 1 further recite that these packets of received audio data are

multiplexed into a multiplexed stream that is then transmitted. The specification also states that the mix/mux forms "multiplexed audio packets" and only refers to packets when describing the multiplexed output of the mix/mux. *See* '858 Patent at 4:51-54, 5:49-50, 5:66–6:2; *see also* '858 Patent at 3:3-11 ("another advantage of the present invention is that by providing **multiplexed packets**[1] to clients…."). In fact, Paltalk admits as much in its reply brief: "packet mixer/multiplexor 208" multiplexes the audio data for each active speaker and excludes an active speaker's own audio data "**in the multiplexed packets**." *See* Opp'n at 14. A POSITA would recognize that data cannot be transmitted freely across a network and must be placed in some kind of transport mechanism, i.e., a data structure. *See* Bress Decl. at ¶ 41. Each "packet" in this packetized network must therefore have a definite structure.

Paltalk's citations to the specification, by contrast, are simply irrelevant. Indeed, they only describe the mix/mux forming multiplexed audio packets, which does not demonstrate that "packet" refers to "several flows of data that have been multiplex." *See* Opp'n at 7. Similarly, Paltalk's reliance on its expert's opinion that data "is not always stored in a data structure before being sent" (Madisetti Decl. at ¶ 41) completely disregards the plain language of the claims and the specification; expert testimony "may not be used to vary or contradict the claim language." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1584 (Fed. Cir. 1996).

Second, Paltalk argues that the "preferred embodiment does not compel the 'data structure' limitation." Opp'n at 7. But the patent *only* describes the multiplexed stream in terms of "packets" and *only* contemplates one type of flow of data for the multiplexed output – a packet. *See e.g.,* '858 Patent at 4:50-54 ("The mix/mux 208 forms **multiplexed audio packets** to be sent to clients capable of mixing multiple audio streams…"); '858 Patent at 5:66–6:1 ("Then, in step 322, control

[1] All emphasis added unless otherwise noted.

flow 300 either sends the **multiplexed audio packet** (created in step 314) to a mixing client….”). Ironically, in attempting to read the concept of packets out of the claim, Paltalk asserts “nothing in the embodiment requires the multiplexor [*sic*] to output data structures, only the multiplexed **packets**.” *See* Opp’n at 7. In other words, even Paltalk itself cannot describe the multiplexed stream without referring to “packets.” As discussed above, packetized audio data requires a data structure. *See e.g.*, Bress Decl. at ¶ 41. Paltalk also argues that limitations from sole embodiments cannot limit claims. *See* Opp’n at 7. While claims generally may not be limited to a sole embodiment, the Federal Circuit has also recognized that language used in the specification may lead to the “inescapable conclusion” that the described feature is a feature of the invention and should be incorporated into the claim meaning. *See Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1347– 48 (Fed. Cir. 2004). Here, the ’858 patent only describes the multiplexed stream in terms of “packets,” and Cisco’s construction helps to explain to the lay juror that these packets exist as a data structure. On the other hand, Paltalk’s insistence that no construction or explanation is necessary is a thinly veiled attempt to preserve flexibility at the expense of clarity.

Third, Paltalk accuses Cisco of “overread[ing] claim 1’s use of the phrase ‘said multiplexed stream.’” *See* Opp’n at 6–7. But the plain language of claim 1 explicitly requires that the same multiplexed stream be sent to each client: Step 5 “multiplex[es] said packets of audio data received from each client on said active speakers list into a multiplexed stream,” and step 6 “send[s] ***said*** multiplexed stream to each of said first subset of the plurality of client.” ’858 Patent at Claim 1. This is simply “reading,” not “overreading.” Paltalk’s argument that the multiplexed stream is not a single output centers around the removal of the active speaker’s audio from the multiplexed stream in the dependent claims. *See* Opp’n at 6–7. This concept is not recited in claim 1, but in narrower dependent claim 2 where the multiplexed stream of claim 1 containing all active

speakers' audio is modified and the active speaker's data is removed before sending the modified stream to that client. The "said multiplexed stream" starting point of claim 2 is the singular outputted multiplexed stream of claim 1 containing all audio data. Paltalk's insistence that clients can receive different audio data does not contradict Cisco's construction. "The multiplexed stream" contains interleaved packets of audio data from each client on the active speaker list packaged into a data structure, prior to the removal step in claim 2. Paltalk's reliance on the modified "multiplexed stream" in dependent claim 2 to limit the term in claim 1 violates claim differentiation. *See Karlin Tech., Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 971–72, 50 USPQ2d 1465, 1468 (Fed.Cir.1999) ("limitations stated in dependent claims are not to be read into the independent claim from which they depend"); *see also Wenger Mfg. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1234 (Fed. Cir. 2001) (claim differentiation cannot be circumvented when a dependent claim recites a distinct and separate limitation not recited in the independent claim).

ii. "continuous sequence"

Contrary to Paltalk's assertion, the intrinsic record requires that data is sent in a "continuous sequence." The claim language recites that audio packets received from clients are multiplexed into a stream. '858 Patent at Claim 1. The patent never mentions or even suggests that other forms of data are placed in between these packets of the resultant multiplexed output. In Figure 2, a client's audio packets are first sent to buffer 202. *See* '858 Patent at 4:36-37. Packet retriever 206 connects with buffer 202 when switch 204 is closed by an event trigger, which can either be timer-based or buffer-size based (i.e., based on a predetermined number of packets placed in the buffer). *See* '858 patent at 4:39-41; 4:64–5:3. The connection allows retriever 206 to retrieve all the packets in packet buffer 202 that then enter loop 310-324. *See* '858 patent at Fig. 3. This process loop repeats for each client, and step 314 creates the resulting multiplexed stream.

See '858 patent at 5:44-46. Therefore, since only the packets received from the buffer proceed through loop 310-324, no other packets can be inserted into the multiplexed output, and it is a continuous stream. This stream ends up being the same for every mixing client because the same set of packets is processed through loop 310-314.

Paltalk argues that the "flow of data back to the client can be interrupted by other packets or even paused." Opp'n at 8. But what the client receives and what the server transmits are two different concepts. Clients can conceivably receive data transmission from different sources at the same time. But the flow of data being sent back to the clients *from the server* is the multiplexed stream, which is created by the steps outlined in the paragraph above and cannot be interrupted or halted. *See* Bress Decl. at ¶ 41. Contrary to Paltalk's characterization of step 302, data transmission is not "halted by the occurrence of an event." *See* Opp'n at 8. Quite the opposite, the patent says that "[i]n step 302, an event is detected by the mixer 118 causing switch 204 to close." '858 patent at 4:64-65. Paltalk's own expert explained as much: "When 'the mixer 118' detects an event, it triggers a response from 'control flow 300.'" Madisetti Decl. at ¶ 48. Step 302 begins control flow 300 and in no way would it be responsible for halting the process. Simply put, the claims and specification contemplate a continuous sequence of audio data.

iii. "interleaved packets"

The parties agree that multiplexing of audio packets entails the interleaving of packets ("[I]nterleaving could be one way to multiplex audio packets"). Opp'n at 8. A POSITA would understand the term interleaving to mean "alternating," and as recited by the claims, a multiplexed stream is made up of audio packets received from each client. Thus, interleaving *necessarily* means to alternate received audio packets in the context of this patent. *See* Bress Decl. at ¶ 41–42. Notably, Paltalk has not identified any type of multiplexing other than interleaving, and in a packetized network such as the one contemplated by the '858 patent, the output of a multiplexer

contains interleaved packets. *See* Bress Decl. at ¶ 41. Paltalk provides no support for its vague statement that "the Patent does not restrict the concept of multiplexing to interleaving" other than attorney argument. *See* Opp'n at 8.

iv. "audio data"

Oddly, to support its argument that the multiplexed stream can include information other than audio data, Paltalk relies on a portion of the specification that does not actually relate to the multiplexed stream. Instead, Paltalk again conflates the multiplexed output generated *from* the multiplexer with the individual client's audio packets that are sent *to* the multiplexer prior to the formation of the multiplexed stream. The referenced "proprietary code" that can be inserted into the audio stream or control stream refers to inserting the code into the audio stream of a single PSTN client; it does not refer to inserting code into the actual multiplexed stream. *See* '858 Patent at 5:36-43. Paltalk omits this point from its citation ("[S]uch mixing capability information may already be present in the audio stream received from subscribers…."). *Id.* at 5:40-43. Information other than audio data can be included into the audio streams received from the clients *before* the packets are multiplexed into the multiplexed stream; however, the multiplexed stream is composed of audio data and does not include other types of information. *See* Opp'n at 9.

v. "each client on the active speakers list"

Finally, Paltalk complains that Cisco's construction that includes "audio data received from each client on the active speakers list" creates "a confusing redundancy" because the claims separately cover this issue. *See* Opp'n at 9–10. Paltalk, however, does not dispute that the claim language and specification require that the multiplexed stream is made up of data received from each client on the active speaker list. Cisco's construction is neither redundant nor confusing.

B. "PC-based equipment" (claims 4, 9)

Cisco's construction of plain and ordinary meaning is not a "red-herring," and the term does not require disclaimer of "traditional phones." *See* Opp'n at 11–12. There is no dispute that the patent distinguishes between personal computers and traditional phones, and the specification does not use the term "PC-based equipment" in a way different than its plain and ordinary meaning at the time of the patent. The term is easily understood by a lay person, and no clarification is needed.

C. "means for removing" (claims 7 and 8)

Well established Federal Circuit jurisprudence necessitates a finding that the "means for removing" terms are indefinite as a matter of law. The "*quid pro quo*" for the convenience of functional claiming using "means-plus-function" limitations is that the patentee must disclose corresponding structure that ***clearly links or associates*** that structure to the function that is recited in the claim language. *See B. Braun Med., Inc. v. Abbott Lab'ys,* 124 F.3d 1419, 1424 (Fed. Cir. 1997). Paltalk points to *Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015), which simply confirms the clear link or association standard. *Id.* at 1352 ("Structure disclosed in the specification qualifies as "corresponding structure" if the intrinsic evidence clearly links or associates that structure to the function recited in the claim."). *Williamson* also states that "if a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim, a means-plus-function clause is indefinite." *Id.* But this statement is not equivalent to Paltalk's proposition that "so long as a POSITA can 'recognize the structure in the specification and associate it with the corresponding function in the claim,' the clause is not indefinite." Opp'n at 16. Paltalk's faulty logic would write out the well-settled standard that the disclosed structure must be ***clearly linked or associated*** to "the function that is recited in the claim language." *See B. Braun Med.,* 124 F.3d at 1424;

Williamson, at 1352.[2]

Here, neither the mixer nor the algorithm that Paltalk points to are clearly linked to the claimed function of "**removing**. . . **from** [**said combined packet** [or] **said multiplexed stream**] said packets of audio data received from said one of the plurality of clients. . . ." Nothing in the description of the mixer or of "control flow 300" addresses removing packets from the already formed "combined packet" or "multiplexed stream" as stated in the claimed function. Bress Decl. at ¶ 46–48. Indeed, Paltalk's cited disclosure concerns *forming* the combined packet or stream and not including certain packets. (Opp'n at 14, 16). As Paltalk's expert admits, "the '858 Patent details the removing step as part of the creation of this multiplexed or mixed stream." Madisetti Dec'l. at ¶ 57. But this is not the claimed function. The plain language of the claims and the agreed function states that the combined packet or multiplexed stream is already formed, and the function is to remove audio packets from it. Bress Decl. at ¶ 46–48 . As discussed in Cisco's opening brief, the specification does not provide structure for this claimed function, either as an algorithm or in the description of the mixer. *See* Opening at 11–14. And the fact that the outputted combined packet or multiplexed stream may not include the packets from the active speaker does not mean that the structure disclosing *how* to remove the packets is included in the specification. *See* Opp'n at 15 ("each unique stream sent to a client has *removed* audio if the client is an active speaker").

[2] Paltalk also misinterprets the well-settled law that except for in narrow circumstances where the structure is coextensive with the function (i.e. the function can be performed by a general purpose computer with no special programming), an algorithm is required. *See In re Katz Interactive Call Processing Pat. Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011); *id.* at n.11; *see also Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1365 (Fed. Cir. 2012). As Paltalk admits, the mixer is a "special-purpose element of the multipoint control unit (MCU) server" (Opp'n. at 15) (i.e. a general purpose processor with special programming), which means that the disclosed structure must be an algorithm.

The specification does not disclose structure for the removing function. The law is explicit that the function is only that which is described in the claim. *See Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113 (Fed. Cir. 2002) ("It is improper to narrow the scope of the function beyond the claim language. It is equally improper to broaden the scope of the claimed function by ignoring clear limitations in the claim language.") (citations omitted).

But even accepting Paltalk's (incorrect) assertion that not including the packets in the first place is an identical function to removing the packets from the already formed stream, the disclosure in the specification is still insufficient structure. The specification does not explain *how* to perform this task; it simply states that it would "*be apparent* to those skilled in the relevant art(s), if party j is an active speaker, step 314 will not include party j's own audio data in the [multiplexed packets or decoded data]." '858 patent at 5:48-50, 5:57-59. A statement that something would be apparent to a POSITA is not sufficient disclosure to take advantage of the means-plus-function format of claiming as it does not particularly point to any method with certainty. *See Biomedino, LLC v. Waters Techs. Corp.*, 490 F.3d 946, 953 (Fed. Cir. 2007) ("Accordingly, a bare statement that known techniques or methods can be used does not disclose structure. To conclude otherwise would vitiate the language of the statute requiring 'corresponding structure, material, or acts described in the specification.'").

Allowing this as structure would leave open a myriad of potential approaches to perform this task, which is impermissible functional claiming. Paltalk's attorney argument that each stream sent to a client "has *removed* audio if the client is the active speaker" (Opp'n at 15) does not remedy the lack of structure in the specification explaining how that is accomplished.

III. CONCLUSION

For the foregoing reasons, Cisco respectfully requests that the Court adopt its constructions, including the findings of indefiniteness, of the disputed claim terms.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of the above and foregoing has been served upon all counsel of record, via the Court's CM/ECF system on this the 18th day of January, 2022.

/s/Sarah E. Piepmeier
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